fact that in this respect the extreme eastern Eskimo are very much like the inhabitants of Alaska. Among the implements collected by the expedition, are a great number of excellent carvings, — boxes, harpoon-staffs, and other implements, covered all over with carved figures. On all kinds of objects a single ornament is found, representing a seal. Mr. Holm believes that the high development of this art favors the opinion of Dr. H. Rink, who thinks that the East Greenlanders visited the coast coming from the north. He mentions the following facts as favoring this theory: the occurrence of deserted habitations in the northern parts of East Greenland; the undoubted fact that a number of animals reached the east coast coming from the north; and the tale of Uyartek, who travelled all around Greenland. The high development of the art of the East Greenlanders leads him to think that they were in contact with the far-distant Alaskan tribes at a comparatively recent date, while they must have been separated for a long time from the West Greenlanders.

THIRD ANNUAL REPORT OF THE DAIRY COMMISSIONER OF NEW JERSEY.

THE third annual report of the dairy commissioner of New Jersey, being the report for 1888, is full of interesting material. Dr. William K. Newton's long experience in work of this kind renders his reports of great value to all health-officers engaged in discovering the many frauds practised on consumers. Of 623 articles of food analyzed, 303, or 48.64 per cent, were adulterated or below the legal standards. We have not space in which to consider them all in detail, but will select a few of the most important. Of butter and oleomargarine, 68 samples were examined, and 44 of them were found to be adulterated or not standard. Many samples were submitted supposed to be oleomargarine, but they proved to be bad butter. Dr. Newton says that it may be stated as an invariable rule, that if the suspected material is rancid, and has a disagreeable odor, it is inferior butter, and not oleomargarine. The latter may become granular, and have a disagreeable, greasy taste; but it never turns rancid. Of 121 samples of milk, 43 were not as required by law. Adulteration is now practically confined to the large cities. The general milk is excellent. Of 55 samples of American canned goods analyzed, but one was found not up to the standard. During the year, of tomatoes alone, 3,319,437 cans were packed in the United States, 789,363 of them being put up in New Jersey. In speaking of the alleged danger from these goods, Dr. Newton says that it has been his practice for the past few years to investigate all reports of poisoning supposed to be due to the eating of canned articles, but in no instance has he found a well-authenticated case of poisoning. On this subject he says,—

"It is claimed that lead and tin have been found in large quantities in canned vegetables. My investigations have never revealed a single case where lead was in quantities large enough to detect. If that metal is present in these preserved foods, immediate steps should be taken to prevent the sale of articles so contaminated; for it is well known that the constant ingestion of very minute quantities of lead and some of its salts is almost invariably followed by symptoms of poisoning. And these symptoms are well marked, and known to every physician: hence, if there are cases of lead-poisoning due to this cause, a short time only would elapse before they would be placed on record. Lead is a cumulative poison, and is very slowly cast out by the system; but the ingestion of quantities as small as $\frac{1}{24}$ or $\frac{1}{100}$ of a grain, for a time is almost certain to be followed by symptoms of poisoning. I mention these well-known facts for the following reasons: first, if there have been cases of lead-poisoning caused by the use of canned foods contaminated with this metal, the medical profession would have, ere this, published accounts of the cases; second, the contrast between this metal and tin is so marked that the mere mention of the facts will be convincing.

"There is no doubt but that tin is frequently found in the articles preserved in vessels made of that metal. Especially so is this the case with acid vegetables like tomatoes, and the tables given show how often it has been revealed by the analyses just concluded. This being the case, the question is naturally asked, Is this metal poisonous, or are the quantities detected of any importance? Tin is commonly considered, next to iron, one of the most innocuous of the baser metals. Nearly all of our culinary vessels are made of it, and their use is never followed by any ill results. All the evidence regarding the effects of tin on the system is negative. There are no recorded cases of poisoning, and, in fact, no mention is made in the authoritative works on toxicology of tin as a dangerous metal. The only instances where poisonous properties have been claimed for tin are in the records of cases of adulteration of molasses by a certain salt of that metal. Such cases were tried in the Massachusetts courts, but the evidence was not conclusive. We may, then, accept the facts in this relation, and state, that so far as scientific records now go, and so far as evidence is recorded, the quantity and quality of tin as found in canned foods are not injurious."

Mr. Shippen Wallace, chemist of the Board of Health, says that the fact cannot be too thoroughly impressed on the community, that the present system of canning vegetables is of inestimable value; but the same rules should be followed which are made use of with fresh vegetables in their use; that is to say, if, on opening a can, the contents are spoiled, act as one would with fresh vegetables under similar circumstances,—throw them away. This done, there is no possible danger in their use; but if not, the same risk is run as would be in the use of spoiled fresh vegetables, only to a greater extent.

In examining canned asparagus, a large amount of tin was found, and the interior of the can was invariably blackened. This may come from the acid in the asparagus, or from some ingredients used in the process of canning. From the results of the examination of asparagus packed in tin, it would seem to be demonstrated that this vegetable should be put up in glass only, and that the use of tin should be abandoned. Dr. Newton further says, that, of all cases of sickness caused by eating canned goods, the cause has always been found to have been that the contents were spoiled when opened, or the can had been allowed to remain open for a day or more before the contents were used.

Of six samples of ground coffee examined, 8 were pure and 16 adulterated. The adulterants were roasted and ground peas, beans, wheat, and chiccory. The examination of tea showed that while there is no adulteration, there is a large amount of inferior and debased tea used in New Jersey.

Of 415 samples of drugs examined, 231 were found of inferior quality. Of 95 samples of cream-of-tartar, but 46 were up to the standard. Few articles are so commonly debased as this one. In speaking of this, Dr. Newton says, —

"The adulterations detected, in the greater number of debased samples, were clearly intentional, and were not due to lack of care in the methods of manufacture. An excess of tartrate or traces of chloride may well be considered as due to want of skill, or lack of care, in the maker; but the presence of sulphates, phosphates, alum, and flour can be accounted for in one way only, that is, they were added for fraudulent purposes.

"Several unique samples were examined. One, purchased at Beverly, contained no cream-of-tartar, but was a mixture of flour, acid phosphate of lime, and sulphate of lime; another sample of the same kind was sold to one of my agents at Cape May. A sample was sold by a dealer at Pemberton that proved to be a mixture of alum, phosphate of lime, and 64 per cent of cream-of-tartar. Several were obtained in different parts of the State that were adulterated with impure acid phosphate of lime.

"The samples that were equal to the standard were, in at least 90 per cent of the cases, obtained from druggists, but many from this source were badly debased. The impure cream-of-tartar obtained in this State came largely from the Southern and Western sections, and was sold to dealers by agents and jobbers from Philadelphia. There appears to be a certain relation between the fertilizer trade in that city and the bogus cream-of-tartar business, the connection probably being due to the trade in impure phosphates.

"Two suits were instituted against dealers in the very impure article, these being settled on the payment of costs, when the dealer promised to return the adulterated article to the wholesale dealer, and to sell only the pure article. Warning notices were sent to all other dealers detected in selling adulterated cream-of-tartar."

Forty-three samples of medicinal distilled liquors were examined, of which six answered to the tests given in the pharmacopœia and dispensatory, and thirty-seven were inferior. These distilled liquors were all purchased at drug-stores, and the dealer was presumed to know that they were intended for medicinal use. The price paid varied from the rate of four dollars to twenty dollars a gallon, yet this was not indicative of the quality.

The pharmacopœia defines brandy to be "an alcoholic liquid obtained by the distillation of fermented grapes, and at least four years old." It shall contain from 36 to 47 per cent, by weight, of alcohol, shall not contain any fusel-oil, nor shall the residue obtained by evaporation exceed 0.25 per cent. There should be no evidence that sugar or glycerine has been added, and it should contain a slight amount of tannin derived from the casks. None of the samples answered to these tests, and there was no proof that the article was of the proper age.

The difficulty of obtaining pure brandy of a proper age for medicinal use is very great. This is especially true of the imported article; while that made in California is, as a rule, of inferior quality, and not sufficiently aged and bland to be used in cases of illness. The following statement, made in the "United States Consular Reports," November, 1887, p. 333, is interesting in this connection: —

"The term 'brandy' seems to be no longer applied to a spirit produced by the fermentation of grapes, but to a complex mixture, the alcohol of which is derived from grain, potatoes, or, worst of all, the refuse of the beet-root refineries. It would seem to be fairly impossible at present to purchase a pure cognac. As each individual proprietor of a vineyard has become a distiller and compounder, he has acquired the art of imitating any special flavor or vintage of brandy that may be called for. Potato spirits and beet alcohols, the most deleterious and obnoxious of all the varieties of spirits, are sent from Germany into France in vast quantities. They are flavored, colored, and branded or labelled to meet the wishes of American connoisseurs. The mere fact of coming out of bond, or 'straight through the custom-house,' is generally accepted here as sufficient evidence that they are pure and genuine. It is rather unfortunate that physicians themselves frequently strengthen this hallucination in favor of imported spirits by giving the most stringent orders to their patients to procure genuine French cognac, even though it may command tenfold the price of an absolutely pure spirit of domestic production. This imperative command becomes a cruel injustice in the case of poor patients. Under the best of circumstances, what is there to be gained by the use of French brandy in preference to pure domestic spirit?"

And, it may be added to this statement, if alcoholic stimulants are to be prescribed by the physician, let him first ascertain the source of the sample, and acquaint himself with the quality, origin, and ingredients. The alcoholic strength in the samples analyzed varied from 37 to 47 per cent of alcohol by weight. Of the 15 samples of whiskey examined, 3 were equal to the requirements of the pharmacopœia. That authority defines this spirit as follows: "An alcoholic liquid, obtained by the distillation of fermented grain, generally corn, wheat, or rye, and at least two years old." Its alcoholic strength should be between 44 and 50 per cent by weight. It should contain no fusel-oil, not more than 0.25 per cent of residue on evaporation, and traces of tannin from the casks. The object sought by this description is to insure a properly made and aged liquor, and one without irritant or acrid properties.

The same objections to the use of impure or badly made whiskey obtain as were mentioned above, and physicians should not prescribe for use in cases of sickness a stimulant that fails to meet the pharmacopœial tests. The alcoholic strength of the samples examined varied from 34 to 48 per cent of alcohol by weight.

Of 42 samples of laudanum examined, only 8 were up to the standard. Dr. Newton's investigation revealed many important facts concerning the prevalence of the opium habit, and he was surprised to learn the amount of this potent drug, and its tincture, that is sold at country grocery-stores; but that the consumption of this article is great, and increasing, was no surprise when he ascertained how easily the article could be obtained, notwithstanding the State law that bottles containing the tincture should be labelled, and not disposed of to irresponsible persons. He suggests that some action be taken that will check the sale of opium and its preparations to irresponsible persons, or without an order from a physician.

The report contains, in addition, an exhaustive inquiry into the baking-powders used in the State, which we shall notice at another time, and a list of decisions by the Supreme Court on the oleomargarine law.

Residents of New Jersey may congratulate themselves on having so capable and watchful an officer as Dr. Newton at the head of this important department, and we regret that the same congratulations cannot be extended to the residents of many other States in the Union.

GOULD'S ORNITHOLOGICAL WORKS.

MESSRS. HENRY SOTHERAN & CO., of London and Manchester, having purchased from the executors of the late naturalist, Mr. John Gould, F.R.S., F.Z.S., the whole stock, lithographic drawings, copyright interests, etc., of his various works on natural history, announce the completion of this grand series of ornithological works by the publication of the twenty-fifth part of "The Birds of New Guinea and the Adjacent Papuan Islands." This series, comprising forty-three volumes, uniformly printed in imperial folio size, is now offered complete for one thousand pounds net.

A short biographical sketch of Mr. Gould appeared in *Nature* some time ago, from which it appears that John Gould was born at Lyme, in Dorsetshire, in 1804, and in early life passed several years under the care of the late Mr. J. T. Aiton, of the Royal Gardens at Windsor. In the year 1827 he went to London, and became taxidermist to the Zoölogical Society's museum, where he had the good fortune to obtain the intimate friendship of Mr. N. A. Vigors, then one of the leading English naturalists; and through him John Gould received his first opportunity of appearing as an author. So rare were Himalayan birds in those days, that a small collection was thought worthy of description by Mr. Vigors in the "Proceedings of the Zoölogical Society," and the figuring of these specimens was commenced by Mr. Gould under the title of "A Century of Birds from the Himalayan Mountains." By this time, however, an event had taken place which had an influence on the whole of his later life; viz., his marriage with Miss Coxen, the daughter of Mr. Nicholas Coxen of Kent. Besides her other accomplishments, Mrs. Gould was an admirable draughtswoman, and from her husband's sketches she transferred to stone the figures of the above-named work. Its success was so great that in 1832 the "Birds of Europe" was commenced, and finished in five large folio volumes in 1837; while simultaneously, in 1834, he issued "A Monograph of the Rhamphastidæ, or Family of Toucans," and, in 1838, "A Monograph of the Trogonidæ, or Family of Trogons." To the last he maintained his love for these birds, and one of his most recently finished works was a second edition of the last-mentioned monograph. It is a curious fact, that, when John Gould proposed to publish his first work, he applied to several of the leading firms in London, and not one of them would undertake to bring it out; so that it was only with reluctance that he began to issue the work on his own account. Besides these larger publications, he had described the birds collected during the voyage of the "Beagle" by his friend Mr. Darwin, and had contributed papers on other subjects to the Zoölogical Society's publications.

We now come to what is considered the most striking incident in Mr. Gould's life, — one unsurpassed in its effects in the annals of ornithology. Beyond a few scattered descriptions by some of the older authors, and an account of the Australian birds in the museum of the Linnæan Society by Messrs. Vigors and Horsfield, the birds of Australasia were very little known at the date mentioned. Accompanied, therefore, by his devoted wife, Mr. Gould proceeded in 1838 to study Australian birds in their own home; and he personally explored Tasmania, the islands in Bass's Straits, South Australia, and New South Wales, travelling four hundred miles into the interior of the latter country. This voyage, specially undertaken for the purpose of obtaining an exact knowledge of Australian birds, must ever be reckoned as a distinct scientific achievement; and the accounts of the habits of some of the more